

Product data sheet

CORIO CP-450F Refrigerated / heating circulator

with an enhanced pump performance and a temperature range up to +200 °C

Refrigerated circulators from the CORIO CP range are suitable for applications with a temperature range up to +200°C. The enhanced pump performance ensures they are suitable for easy temperature control tasks in combination with external applications.

With natural refrigerant

The CORIO CP-450F is alternatively available with natural refrigerant. Order No. 9 013 714.N1

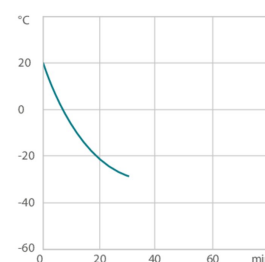


Product Features

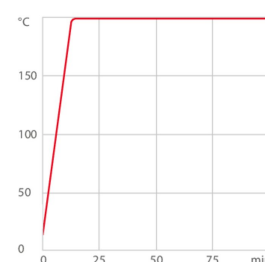
- ✓ Models for internal and external applications
- ✓ Bright, white, easy to read display
- ✓ Very quiet
- ✓ powerful and infinitely adjustable pressure pump
- ✓ USB connection
- ✓ RS232 interface for online communication
- ✓ Bath lid and drain tap included
- ✓ removable ventilation grid



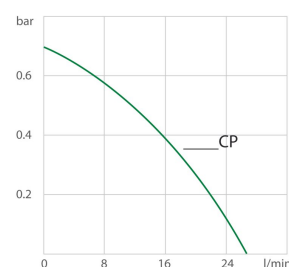
Cool-down time Medium: Ethanol



Heat-up time Medium: Thermal



Pump capacity Medium: Water



Performance values

230V/50Hz (Schuko Plug - CEE 7/4 Plug Type F)

Heating capacity kW	2
Viscosity max. cSt	50
Pump capacity flow pressure l/min	8 ... 27
Pump capacity pressure bar	0.1 ... 0.7
Power consumption A	13
Voltage Tolerance %	230V -10 / +5

Refrigerant variants

Order number including voltage version (230V/50Hz) 9013714.N1.33

Cooling capacity 1 (Ethanol)

°C	20	0	-10	-20	-30
kW ¹	0.44	0.37	0.27	0.16	0.06

Note about natural refrigerants:

Temperature control units using natural refrigerants are often subject to regulatory requirements regarding the installation site, operation, transport or disposal of the units. If you have any questions, we will be happy to advise you.

Refrigerant stage 1

Refrigerant R290

Filling weight g 33

Global Warming Potential for R290 3

Carbon dioxide equivalent t 9.9E-5

Order number including voltage version (230V/50Hz) 9013714.S1.33

Cooling capacity 1 (Ethanol)

°C	20	0	-10	-20	-30
kW ¹	0.44	0.37	0.27	0.16	0.06

Refrigerant stage 1

Refrigerant R449A

Filling weight g 70

Global Warming Potential for R449A 1397

Carbon dioxide equivalent t 0.09779

¹ Performance specifications measured in accordance with DIN 12876. Cooling capacities up to 20 °C measured with ethanol; over 20 °C with thermal oil unless otherwise specified. Performance specifications apply at an ambient temperature of 20 °C. Performance values may differ with other bath fluids.

Technical data

Available voltage versions

Order No. 9013714

Available voltage versions:

9013714.N1.01	100V 50/60Hz (Nema N5-15 Plug) (R290)
9013714.S1.01	100V 50/60Hz (Nema N5-15 Plug) (R449A)
9013714.N1.02	115V 60Hz (Nema N5-15 Plug) (R290)
9013714.S1.02	115V 60Hz (Nema N5-15 Plug) (R449A)
9013714.N1.33	200-230V 50/60Hz (Schuko Plug - CEE 7/4 Plug Type F) (R290)
9013714.S1.33	200-230V 50/60Hz (Schuko Plug - CEE 7/4 Plug Type F) (R449A)
9013714.N1.33.chn	200-230V 50/60Hz (CN Plug) (R290)
9013714.S1.33.chn	200-230V 50/60Hz (CN Plug) (R449A)
9013714.N1.04	200-230V 50/60Hz (UK Plug Type BS1363A) (R290)
9013714.S1.04	200-230V 50/60Hz (UK Plug Type BS1363A) (R449A)
9013714.N1.05	200-230V 50/60Hz (CH Plug Type SEV 1011) (R290)
9013714.S1.05	200-230V 50/60Hz (CH Plug Type SEV 1011) (R449A)

Cooling

Cooling of compressor 1-stage Air

Bath

Bath tank Stainless steel

Bath cover integrated

Usable bath opening cm (W x L / D) 13 x 15 / 15

Electronics

Interfaces RS232, USB

Temperature control PID1

Absolute temperature calibration 3 Point Calibration

Temperature display LED

Temperature setting Keypad

Electronic Timer h:min 0 ... 999

Dimensions and volumes

Weight kg 25.6

Barbed fittings inner diameter mm 8/12 mm

Total dimensions cm (W x L x H) 23 x 40 x 65

Filling volume l 3 ... 4

Pump connections M16x1 male

Temperature values

Working temperature range °C	-30 ... +200
Temperature stability °C	±0.03
Ambient temperature °C	+5 ... +40
Temperature display resolution °C	0.01

Other

Classification	Classification III (FL)
IP Code	IP 21
Pump function	Pressure Pump
Pump type	Immersion Pump

Included in delivery

2 Barbed fittings for tubing 8 and 12 mm ID. (Pump connections M16x1 male)

All Benefits



Brilliant.

Very bright display makes it easy to read even from a distance.



Connection. Easy.

Inclined pump connections (M16x1) facilitate the connection of applications. Each unit includes 2 barbed fittings of 8/12 mm diameter each.



Everything at the front.

All operating controls and safety functions are accessed easily and comfortably from the front.



Exact.

You can rely on it. PID1 control and 'Active Cooling Control' make the new CORIO precise and perfect.



Locked in.

The lockable power plug guarantees safe connection. More process safety.



Switch on. And off you go.

Intelligent operating concept. Ready for operation with just a few quick and easy steps.



Timer. Integrated.

CORIO circulators include an integrated timer function. When the set time has elapsed, a signal sounds and the device switches off. Setting range: 0 ... 999 minutes.



Powerful. Adjustable.

Strong pressure pump, continuously adjustable.



Early warning system for low liquid level.

Maximum safety for your application. Optical and audible alarm allows user to refill bath fluid in time.



Connectivity.

Remote control made easy. CORIO CP circulators feature a USB connection and RS232 interface.



Satisfied customers.

11 subsidiaries and more than 100 partners worldwide guarantee fast and qualified JULABO support.



Services 24/7.

Around the clock availability. You can find suitable accessories, data sheets, manuals, case studies, and more at www.julabo.com.



Highest measuring accuracy

'Absolute Temperature Calibration' for manual compensation of a temperature difference, 3-point calibration



Quick support

If an error occurs, the integrated Black-Box function permits fast diagnosis by the JULABO service team



100% Checked.

100% testing. 100% quality. Each JULABO Circulator undergoes thorough quality testing before leaving the factory.



Quick start.

Individual JULABO consultation and comprehensive manuals at your disposal.

Refer to www.julabo.com for more information regarding the entire JULABO product portfolio. Technical changes without prior notification. Images may deviate from the original. | Datasheet No.EN9013714/260313